



## Before We Get Started

- Make sure you are using your **first and last name** as it appears in your registration on your screen.
- We would like for you to turn on your video for introductions
- Please type your First and Last name and district/agency in the chat box
- Sign in for Attendance will be explained for each ESC
- ESC1 Remote Check In Code: 2021



## Design to Learn Session III

***Hands on Learning  
A Teacher's Guide  
For Children with  
Pervasive Developmental Disorders  
(including Autism) and other severe  
disabilities  
(Rowland, Schweigert, 2003)***

## ESC 20 Participants

Hello ESC-20 Presenter(s)

In an effort to ensure that participants receive proper credit for attending the many webinars that are now being offered, we have implemented a **New Process** for awarding credit. Instructions for how this process works will be added to the *Attendance Taking Process* section of the **Virtual Instructions Resources (VIR)** page on the ESC-20 intranet. **Please refer to the VIR as needed to obtain any relevant information (and/or updates) to assist you throughout the virtual instruction process.**

We ask that you please add the below link of the **Google ZOOM Attendance Form** to the last slide of your presentation and notify participants that they are **required** to register for the session (via their Connect20 account) **AND** complete the form in order to receive credit. Participants will have until 4:30pm (or 7:00am the day following a session that begins after normal business hours (4:30pm) to complete the form.

If you or your participants have any questions, please feel free to contact us via email at: [central.registration@esc20.net](mailto:central.registration@esc20.net) or via phone at: (210) 370-5200.

<https://forms.gle/WYNedkhAiAxJHnPS8>

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**Assessment Considerations and Resources for Children with Multiple Disabilities, including Visual Impairments and/or Deafblindness**

**Hands on Learning  
Session 3**

**Gracie Avalos, Education Specialist, ESC 1**

**Mari Garza, Education Specialist, ESC 2**

**Twinkle Morgan, Education Specialist ESC 1**



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**Assessment Considerations and Resources for Children with Multiple Disabilities, including Visual Impairments and/or Deafblindness**  
**Hands on Learning**  
**Session 3**

*Manuals in Nearpod*

<https://share.nearpod.com/vsph/K28uBRQmMu>



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**Hands-On Learning**  
**A Teacher's Guide to Hands-On Learning**  
*For children with pervasive developmental disorders (including autism) and other severe disabilities*

Charity Rowland, Ph.D.  
Philip Schweigert, M. Ed.



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## Overview

- Hands on learning within one's physical environment is essential to a child's early learning
- Hands on experiences deal with initiating actions upon a variety of objects, structures and spaces and responding accordingly
- Developing these skills helps the child to negotiate their physical environment and develop the cognitive skills necessary to gain an understanding about a variety of objects



[https://www.youtube.com/watch?v=x\\_Jt6jfaDul](https://www.youtube.com/watch?v=x_Jt6jfaDul)



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## Overview

con't.

- Observing how a child interacts provides the teacher/parent how the child is understanding of their world and how their interaction provides them a means to learning
- Interaction with objects and interacting with their environment creates opportunities to learn, opportunities to develop social skills, gain acceptance with others based on mutual interest
- For those children with pervasive developmental disorders (PDD), they may be limited in exploration, sharing interests with others, engage in more self stimulation than social opportunities with others



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# Summary

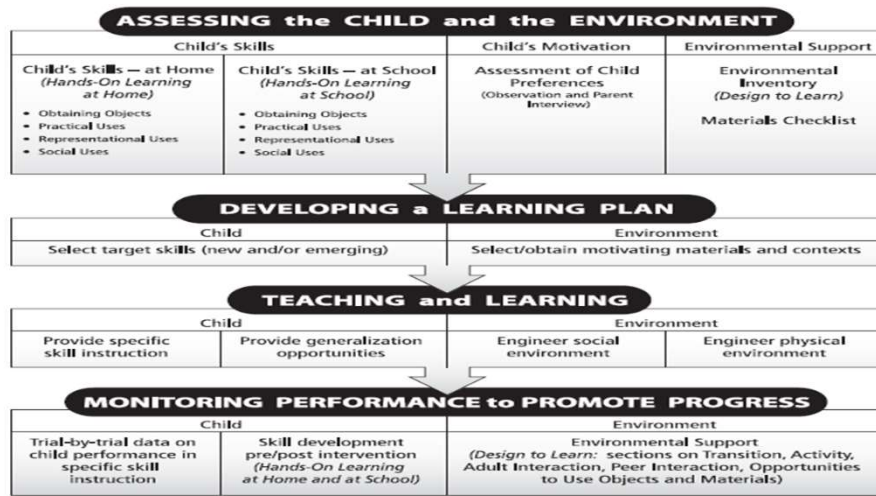
Major findings from the field test study:

- Object interaction skill levels were lower for children with PDD than for their age peers.
- Children with PDD performed most poorly on Strand IV: Social Uses as compared to Strands I-III
- There were high and positive correlations between all four strands of the assessment instruments for children with PDD (as was the case for children without disabilities).
  - High correlations suggest that the learning of object interaction skills from Strands I-III might be a promising route to improved skills in Strand IV, Social Uses.



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The Learning Model (Rowland, Schweigert, 2003)



Model for Hands-On Learning



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# Hands on Learning

## Organization of the Instrument



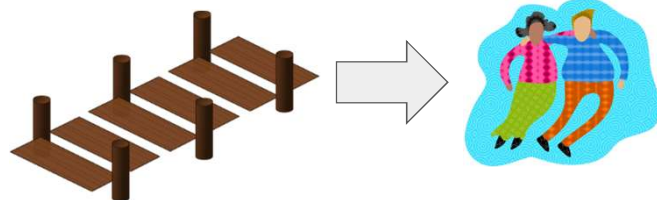
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### Purpose of This Instrument

#### Cognitive



#### Social Skill Development



Increasing a child's exposure to and interest in objects that also interest his/her peers may improve the chances of acceptance by those peers in social settings (Hurley-Geffner, 1995).



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# Target Population

- Developed for nonverbal children (ages 3-5) who have pervasive developmental disorders
- Also useful for other nonverbal children who experience a wide range of disabilities.



<https://thehourproject.com/photo-of-appy-brothers-playing-with-building-blocks-sitting-on-floor/>  
DyabRZ

Not appropriate for:

- Children for whom conventional tests of cognitive development would allow them to demonstrate their skills adequately.
- Children who experience such profound physical limitations that they have little ability to act on objects.
  - It would be impossible to determine if child lacks object interaction skills because of severe motor limitations or because of cognitive limitations



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# Organization of the Instrument

- Designed to describe the object interaction skills of nonverbal children for the purpose of helping families and educators promote children’s cognitive and social skill development.
- Contains 39 skills organized into 4 **strands**
  - I. Obtaining Objects
  - II. Practical Uses
  - III. Representational Uses
  - IV. Social Uses
- Within each strand are **clusters** of related **skills**
  - Clusters are ordered from least to most complex
  - Skills within each cluster are also ordered from least to most complex

Least Complex



Most Complex



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Strand/Cluster/Skills



Least Complex  
↓  
Most Complex

# I. Obtaining Objects

These skills are needed to solve the problem of how to gain access to a desired object that is inaccessible for some reason.



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Strand/Cluster/Skills

## I. Obtaining Objects: Negotiating Barriers

### A. Goes Over/Under Barriers

Student goes over or under a barrier to get something on the other side. Student moves toward an object, person or place, but must climb over or go under a barrier to get to it.

### B. Removes Barriers

Student removes an obstacle that stands between self and desired object, person or place. Rather than moving self around barrier, child tries to move the barrier out of the way. (Does not include removing lid from container.)

### C. Makes Detours

Student moves self around an obstacle or barrier in order to get to desired object, person or place that is behind it. Child cannot initially reach the target by moving directly towards it, so must move away from it first. (Must be clear that child has a target in mind.)



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Strand/Cluster/Skills

## I. Obtaining Objects: Searching and Locating

### D. Locates objects

Student locates object that has vanished from sight or touch or hearing based on where it was last seen, felt or heard. (Need not actually retrieve object.)

### E. Simple search

Student actively tries to find something by looking visually or tactually in two or more places that are within reach of the child. (Need not actually find the object.)

### F. Complex search

Student actively tries to find something by looking visually or tactually in two or more locations that are beyond child's reach. (Need not actually find the object.)



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Strand/Cluster/Skills

## I. Obtaining Objects: Using Containers

### G. Takes Out/Puts In

Student removes a desired object from an open container and drops or places object into open container.

### H. Opens Simple Containers

Student opens common, simple containers to retrieve a desired object that the child knows is inside. Only one action is required to open the container.

### I. Opens Complex Containers

Student opens common containers that require at least two separate actions to open. Child knows that the desired object is inside.

### J. Uses Containers to Carry

Student puts several items in or on a container and uses the container to carry them.



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Strand/Cluster/Skills

## I. Obtaining Objects: Using Tools to Gain Access

### K. Uses Simple Tools to Gain Access

Student uses one object as a means to get another object. An object is present that will serve as a tool, and child does not have to choose between possible tools.

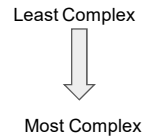
### L. Selects and Uses Tools to Gain Access

Student uses one or more object as a means to get another object. The tool must require proper selection, orientation and manipulation.



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Strand/Cluster/Skills



## II. Practical Uses

Describes skills needed to use everyday appropriately. These are the skills that show that the child recognizes the unique properties of different objects and acts on them with some knowledge of what will happen. These skills demonstrate that the child knows what to do with an object that has a certain shape, motion or purpose, including objects into actions of varying complexity.



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Strand/Cluster/Skills

## II. Practical Uses: Basic Object Use

### A. Simple Actions on Objects

Student acts on an object with one basic strategy that is not related to the conventional use of the object. Must involve more than holding or picking up an object. May include self-stimulatory action, but does not include exploration of object.



### B. Explores Objects

Student examines a new object by looking, feeling, mouthing or listening. Should not include repetitive or self-stimulatory action. Clearly attempts to gain further information about the object.

### C. Functional Uses

Student uses simple objects one at a time clearly understanding what their function is. Object should be designed for more than sensory stimulation. Item need not be oriented properly.

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Strand/Cluster/Skills

## II. Practical Uses: Combining Objects

### D. Transfers Objects

Student transfers an object from one hand to the other in order to grasp another object.



### E. Adjusts Surface

Student purposefully tilts or levels a surface or container to cause items to move, or to come out of container, or to stay in it.

### F. Simple Combinations

Student acts on two objects at the same time, combining them into one simple activity.

### G. Complex Combinations

Student acts on two objects at the same time, combining them into a complex activity that involves a variety of related actions.

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Strand/Cluster/Skills

## II. Practical Uses: Activating Objects

### H. Turns On/Off

Student turns an object on or off.

### I. Operates Complex Objects

Student operates a mechanical object. Uses sustained and varied interaction with object to maintain appropriate operation.



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Strand/Cluster/Skills

## II. Practical Uses: Constructing Objects

### J. Puts Together

Student puts at least three objects together to create one simple object. There is no particular sequence of assembly required.

### K. Uses Tool to Assemble/Disassemble

Student uses an object as a tool to put together or take apart another object. Object used as a tool need not be designated for that purpose.

### L. Constructs

Student assembles items in a logical sequence to construct a more complex object or result.



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Strand/Cluster/Skills



Least Complex



Most Complex

# III. Representational Uses

The skills that follow on the child's ability to recognize and respond to the properties of objects that make them similar or dissimilar based on a variety of characteristics such as shape, size, color, pattern or texture. The ability to understand such relationships between objects is useful for pretend play, matching, and using representations, such as a picture symbols, to give or receive information.



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Strand/Cluster/Skills

## III. Representational Uses: Pretending

### A. Pretend Play Toward Self

Student engages in pretend activities that involve.

### B. Pretend Play Toward Objects

Student directs pretend actions to other objects such as dolls, stuffed toys, etc.

### C. Pretends to Be Someone or Something Else, Using Objects as Props

Student assume the role of another person or an animal or thing, using related objects as props in the role-playing.



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Strand/Cluster/Skills

### III. Representational Uses: Understanding Associations

#### D. Matches By Manipulation

Student turns asymmetrical object until it fits into template. (May try to put it into wrong places first.)



#### E. Matches to Simple Visual Features

Student immediately selects correct object to go into template or to match another one according to its shape, size or color without trial and error.

#### F. Matches to Complex Features

Student matches objects or 2-dimensional images based on a pattern of colors or shapes.

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Strand/Cluster/Skills

### III. Representational Uses: Using Representational Information

#### G. Understands 2-Dimensional Information

Student uses information presented through 2-dimensional representation (picture, line drawing, photo) to access or act on objects.

#### H. Uses Abstract Information

Student plays with materials following abstract cues, rules and representations to play conventionally.



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Strand/Cluster/Skills

Least Complex  
↓  
Most Complex



# IV. Social Uses

Newly developed or existing object interaction skills may become the basis enhancing interactions with other children. As children develop skills for accessing and interacting with objects appropriately, they should be given the opportunity to use them in a continuum of social contexts.



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Strand/Cluster/Skills

## IV. Social Uses: Simple Interactions

### A. Uses Objects Alone in Social Contexts

Student stays in close proximity to the group while interacting appropriately with an object that is fitting in this activity. Object does not need to be the same as others are using and not interaction with peer is required.

### B. Simple Reciprocal Activity

Student engages back and forth play involving objects with a peer. Actions on object are basic and repetitive and are prompted by the object rather than the peer.

### C. Takes Turns

Student attends to behavior of peer to determine when it's his turn act on an object. Skill involves waiting for turn and filling turn at appropriate time. Wait may be brief.



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Strand/Cluster/Skills

## IV. Social Uses: Cooperating

### D. Helps in Repetitive Activity

Student helps peer in activity involving objects. The assistance provided is provided in nature, rather than a chain of different behaviors.

### F. Cooperative Interaction

Student helps a peer in activity with objects. Assistance involves varied actions on objects in response to actions of the other child. Actions are necessary to sustain interaction.



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Strand/Cluster/Skills

## IV. Social Uses: Playing Games

### F. Playing Game with Peer

Student plays rule-bound game with one peer.

### G. Plays Game in a Group


Student plays rule-bound game in a group of at least two peers.




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**1** **Go to jamboard**  
Access Jamboard via link in the chat box or QR code




**2** **click to get a sticky note**




**3** With your assigned breakout room buddies, list examples of ways students can demonstrate object interaction skills during virtual instruction and face to face instruction.

III. Representational Uses: Pretending

Please list examples of ways students can demonstrate this skill in virtual instruction:




Please list examples of ways students can demonstrate this skill in face to face instruction:




# JAMBOARD

<https://jamboard.google.com/d/13tFRLciUluT0u71Texp5h6gvk3rMy6rTMWogJwrVacM/viewer>



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# Hands on Learning The Learning Model



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## Assessing the Child and the Environment

- Child's Skills
  - At Home
  - At School
- Child's Motivation
- Environmental Support



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## Hands on Learning

- Child's Preferences
- The Environment
- Available Materials



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# Developing a Plan

- Teaching and Learning
  - Specific Skill Instruction
  - Engineering the environment
- Monitoring Progress
  - Child Skill Development
  - Environmental Support for Learning



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Cluster	Skill	Assessments*			Instructional Plan		
		Pre	Mid	Post	Instruction*, Content, Materials	Follow Up	
I. OBTAINING OBJECTS	<b>Negotiating Barriers</b>						
	A. Open Obstructive Barriers	/	X				
	B. Multiple Barriers	X	X				
	C. Hidden Barriers	X	X				
	<b>Searching &amp; Locating</b>						
	A. Hidden Objects	/	/	11/99	EE	all contexts	
	B. Simple Search	/	/	12/99	SI	structured play	
	C. Complex Search	/	/	1/00	SI	structured play	
	<b>Using Containers</b>						
	A. Uses Object/Parts	/	X				
B. Opens Simple Containers	X	X					
C. Opens Complex Containers	/	/					
D. Uses Containers to Carry	/	/					
<b>Using Tools to Gain Access</b>							
A. Uses Simple Tools to Gain Access	/	/					
B. Selects & Uses Tools to Gain Access	/	/					
<b>Basic Object Use</b>							
A. Simple Objects and Objects	X	X					
B. Multiple Objects	/	X					
C. Functional Uses	X	/	11/99	SI	multiple exemplars/contexts		
<b>Combining Objects</b>							
A. Handles Objects	X	X					
B. Adjusts Surface	/	X					
C. Simple Combinations	X	X	11/99				
D. Complex Combinations	/	/					
<b>Activating Objects</b>							
A. Uses Object	X	X					
B. Operates Complex Objects	/	/					
<b>Constructing Objects</b>							
A. Puts Together	/	/					
B. Uses Tool to Assemble/Disassemble	/	/					
C. Connects	/	/					
<b>PRETENDING USES</b>							
<b>Pretending</b>							
A. Pretend Play Involves Self	/	/					
B. Pretend Play Involves Others	/	/					
C. Pretends to be something other than objects in play	/	/					
<b>Understanding Associations</b>							
A. Matches to Visual Information	/	/					
B. Matches to Simple Visual Features	/	/					
C. Matches to Complex Visual Features	/	/					
<b>Using Representational Information</b>							
A. Uses 2 Dimensional Information	/	/	11/99	EE	unstructured play		
B. Uses Representational Information	/	/					
<b>FOR SOCIAL USES</b>							
<b>Simple Interactions</b>							
A. Uses Representational Activity	/	/	2/00	SI	structured play		
B. Uses Tools	/	/					
<b>Cooperating</b>							
A. Works in Reciprocal Activity	/	/	5/00	SI	group instruction		
B. Cooperative Interactions	/	/					
<b>Playing Games</b>							
A. Plays Games with Peer	/	/					
B. Plays Games in Group	/	/					

\*Mastered skill = X      Emerging skill = /  
 \*Specific skill instruction = SI      Environmental engineering = EE



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# Hands on Learning

## Strategies for Monitoring Instruction



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## Strategies for Monitoring

- It is important to monitor the student's progress
- Monitoring on a regular basis will provide feedback as to the effectiveness of the instructional plan
- Look for 80% achievement and adjust



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## Areas of Focus

- The item/object selected for the activity
  - Is there a strong interest
  - Opportunity for successful interaction
- Identify the success of the level of support
- Type of support that occurred most frequently
- Can create your own data selection record or
- Check out Daily Data Collection



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HANDOUT

## Hands on Intervention Record

- Daily data collection will provide feedback
  - What is working
  - What is not
  - Where adjustments may be needed
- You can create your own form or check out the form (pg. 33)
- The data collection will provide information as to changes made in the instruction as well as success of any adjustments



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## Hands on Intervention Record

### *Assessment and Monitoring for Progress*

- Assessment of school and home
  - Indicate if assessment occurred in the home or at school
  - Indicate type of assessment – face to face or virtual
- Preferences Probes – Note if child preference is a focus
- Environmental Inventory – Note if the environment is a focus
- Material checklist – Note if this is existing and/or new supports to learning
- Target Skill – is this acquisition of generalization
- Skill Tracking – indicate type of tracking (daily, selected day, activity)



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## Hands on Intervention Record

### *Teaching the Routine*

Materials – List objects being used for the identified skill/activity

Presentation – Describe how objects are presented

Instructional Cues – Write down what staff does to elicit a response

Response – Describe how the child responds (verbal sound, gesture, eye gaze)

Level of Assistance – Describe type of assistance/support staff provides

Time/Latency – List how much time is allowed



Consequence – Staff response to correct and incorrect responses

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# Hands on Intervention Record Environment

Setting/Activity – Describe the setting the activity will be targeted

Partner – Identify staff that will be working with the child

Position – Describe child’s position during the activityf

Peer – Identify any peers the child might be interacting with at the time

Adaptations - Describe any other modifications



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# Questions?



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## Jamboard

- Go to the Jamboard
- Using the Sticky Note feature
- Type up one thing you will try to use as a result of this training
- [https://jamboard.google.com/d/1t4jG1Ru8CSdbxWuAiR\\_Yo9cULmiVIXKdpQ4mlsb8xrl/edit?usp=sharing](https://jamboard.google.com/d/1t4jG1Ru8CSdbxWuAiR_Yo9cULmiVIXKdpQ4mlsb8xrl/edit?usp=sharing)



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# WRAP IT UP

Session IV

February 17, 2021

*Design to Learn Inventory*

*Tangible Symbols*

*Calendar Systems*

*(Register at your ESC workshop site)*



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# Stay Safe Stay Well *Thank You!*

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